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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,810	04/21/2000	H. Donald Wilson	WILSONLESSAC	6936

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EXAMINER

AZAD, ABUL K

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/553,810	<b>Applicant(s)</b> WILSON ET AL.	
	<b>Examiner</b> ABUL K. AZAD	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 40-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 40-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/5/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the communication filed on April 5, 2006.
2. Claims 40-59 are pending in this action. Claims 40 and 57 have been amended. Claims 1-39 have been canceled.
3. The applicant's arguments with respect to claims 40-59 have been fully considered but they are not deemed to be persuasive. For examiner's response to the applicant arguments or comments, see the detailed discussion in the Response to the Arguments section.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 40-47 and 57-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Minematsu (US 6,249,763).

As per claim 1, Minematsu teaches, "a method of speech recognition wherein a user employs a microphone to input unknown speech to be recognized into a computerized system, the computerized system including a computing device, a speech

recognition program and a language model database”, the language model database comprising:

“a word model database comprising digital representations, and associated graphic representations, of properly pronounced known spoken words” (Figure 15, elements 184, 242 and 102); and

“a phrase model database comprising digital representations, and associated graphic representations, of properly pronounced known spoken phrases” (col. 12, lines 18-28);

wherein the method comprises:

“receiving the input speech into the computerized system from the microphone as an input speech signal” (Figure 15, element 150);

“converting the input speech signal into digital representations of audible sound components of the input speech” (Figure 15, element 180);

“comparing the digital representation of an audible sound component of the input speech to the digital representations of spoken words and spoken phrases in the word and phrase model databases to determine a match between the one said audible sound component and one of the word or phrase digital representations” (Figure 15, element 240); and

“outputting the graphic representation associated with the matched word or phrase as a recognized speech component the matched phrase being an input spoken phrase matched with a properly spoken phrase model in the phrase model database” (Figure 15, element 102);

“whereby properly pronounced phrases in the input speech can be recognized and system determination of properly pronounced phrases as mispronunciations of phrases can be avoided” (col. 13, lines 13-39).

As per claim 41, Minematsu teaches, “wherein the associated graphic representations of the spoken words and phrases are alphanumeric representations, wherein the spoken phrases in the phrase model database each comprise at least two words and wherein the method comprises repetition of steps c) and d) to continue recognizing speech input by a user and provide alphanumeric output representing the speech recognition” (col. 12, lines 18-28).

As per claim 42, Minematsu teaches, “comprising employing one or more speech-trained speakers to input words and phrases into the word and phrase model databases and, optionally, as the information is generated by the speakers speaking into microphones, the information is digitized, analyzed and stored” (col. 8, lines 23-30).

As per claim 43, Minematsu teaches, “wherein the word model database or the phrase model database further comprise or both the word model database and the phrase model database further comprise audio recordings, optionally in high quality format, of the words or phrases or both the words and phrases in the model databases, respectively, to provide for audible playback of the words or phrases or both the words and phrases” (col. 11, line 9 to col. 12, line 59).

As per claim 44, Minematsu teaches, “wherein the word model database or the phrase model database further comprises or both the word model database and the phrase model database further comprise error models of word or phrase or both word

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and phrase mispronunciations, respectively, optionally spoken by a speaker who normally makes such mispronunciations” (Figure 7).

As per claim 45, Minematsu teaches, “wherein the word model database or the phrase model database comprises or both the word model database and the phrase model database comprise or comprises digital representations of known mispronounced audible sounds and associated alphanumeric representations of the known mispronounced audible sounds corresponding to the improper pronunciations” (Figure 15, elements 242 and 102).

As per claim 46, Minematsu teaches, “wherein the word model database or the phrase model database comprises or both the word model database and the phrase model database comprise or comprises a collection of word or phrase models or both word and phrase models, respectively associated with one or more mispronunciations” (Figure 15, elements 184 and 186).

As per claim 47, Minematsu teaches, “wherein if the system determines that the mispronunciation is the mispronunciation of a phrase, the system retrieves from memory phrases which have the same or similar mispronunciation errors” (col. 12, lines 18-28).

As per claim 57-59, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 40-47.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 48-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minematsu (US 6,249,763) as applied to claim 40 above, and further in view of Applicant's admitted prior art.

As per claim 48, Minematsu teaches, "wherein the system offers a system user the option of engaging in an interactive speech training dialog with the system in response to system detection of improper pronunciation" (col. 6, lines 8-18), but Minematsu does not explicitly teach interactive program being optionally accordance with the Lessac method. However, Lessac teaches above limitation (Page 29) as acknowledged by the applicant. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Lessac method so as to substantially improve the pronunciation.

As per claim 49, Minematsu teaches, "wherein properly pronounced phrases are stored in the system in the form of alphanumeric presentations and also in high-quality audio format to provide for audible playback of the words during the training dialog" (Figure 15, pronunciation prompting image).

As per claim 50, Minematsu teaches, "comprising generating properly pronounced exercise word models or exercise phrase models or both exercise word

models and exercise phrase models for use in the interactive training dialog during a database generation session effected prior to delivery of the system" (Figures 21-23).

As per claim 51, Minematsu teaches, "wherein in response to detection of an improper pronunciation of a phrase, a properly pronounced version of the phrase is presented on-screen to the user in alphanumeric form and the user is system-invited to pronounce the word and, optionally, the system returns to act as a voice recognition system in response to one or more proper pronunciations" (Figure 24).

As per claim 52, Minematsu teaches, "wherein the training dialog employs an instruction screen showing the user how to make the appropriate sounds, with physical instructions regarding movement of the muscles of the mouth and tongue to achieve the appropriate sound, is presented to the user" (Figure 19).

As per claim 53, Minematsu teaches, "wherein the word model database or the phrase model database comprises or both the word model database and the phrase model database comprise a plurality of exercise word models or exercise phrase models or both exercise word models and exercise phrase models, respectively, for training the speech of a user of the system" (Figure 15, element 242).

As per claim 54, Minematsu teaches, "wherein the exercise word models or the exercise phrase models or both the exercise word models and the exercise phrase models are associated in groups having common mispronunciation characteristics" (Figure 7).

As per claim 55, Minematsu teaches, "wherein the language model database comprises a plurality of phrase error models and the method comprises a speaker other



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than the user, optionally a speech-trained speaker, generating the exercise phrase error models by speaking into a microphone" (Figure 15, elements 150 and 182).

As per claim 56, Minematsu teaches, "making audio recordings of the properly pronounced exercise word and/or phrase models and storing the recordings on computer-accessible media available to the computerized system to allow for playback of these proper pronunciations during use of the program to provide an audible cue allowing the user to monitor the speech recognition performance of the system" (Figure 15, element 152, and Figure 24).

### ***Response to Arguments***

8. The arguments are not deemed to be persuasive.

### ***Contact Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(571) 272-7599**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(571) 272-7602**.

Any response to this action should be mailed to:

**Commissioner for Patents**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**


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Or faxed to: **(571) 273-8300**.

Hand-delivered responses should be brought to **401 Dulany Street, Alexandria, VA-22314** (Customer Service Window).

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June 15, 2006

  
Abul K. Azad  
Primary Examiner  
Art Unit 2626